

ABSTRACT OF THE DISCLOSURE

A wide range tunable filter is provided. A randomly polarized incoming beam is converted into two orthogonally polarized beams. A  $\frac{1}{2}$  wave plate and filter block turns these two beams into four beams. Two of the four beams have a single range of wavelengths and two beams have the remaining wavelengths. Each pair of beams is orthogonally polarized. A  $\frac{1}{2}$  wave plate and birefringent crystal positioned after the filter block combine the two beams having the single range of wavelengths and combines the two beams having the remaining wavelengths. The invention includes a thermal compensator to correct the angle of the filter with respect to the incident light.

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